

Observations of Comet Winnecke 1886, made at Sydney Observatory with the 11½ Equatorial and filar micrometer.
(Communicated by H. C. Russell, B.A., Government Astronomer.)

Date 1886.	Sydney M.T.		Star's Name.		Comparison Stars.		Diff. of Comet from Star.		Comet's position.				No. of Comp.
	h	m s	h	m s	R.A. N.P.D.	R.A. N.P.D.	m s	'	h	m	s	'	
Sept. 2	7 39	18	25809	Lalande			— 0 27.32	+ 10 8.62					10
7	7 23	13	4777	B.A.C.			— 0 51.30	+ 2 36.99	14 18	16.51	102 52	47.97	3
8	7 35	32	5955	Wash. Gen. Cat.			+ 3 26.80	+ 2 4.53	14 22	40.18	103 36	19.54	5
10	7 30	53	26481	Lalande			+ 6 29.75	— 4 9.45					2
11	7 35	33	*27606	Lalande			+ 1 52.34	+ 3 41.27	14 36	7.53	105 46	39.83	10
14	7 16	3	27033	Lalande			+ 4 39.38	+ 4 22.73					10
15	7 31	24	27272	Lalande			+ 1 44.25	— 9 22.96					10
16	7 45	33	8261	Cape Cat. '80			— 5 45.51	+ 4 12.89	14 59	59.19	109 25	46.28	8
17	7 28	40	27567	Lalande			+ 1 37.38	+ 3 57.65					10
18	7 25	34	6282	Wash. Gen. Cat.			— 2 10.40	+ 11 11.86	15 10	0.20	110 52	23.33	10
20	8 16	17	27980	Lalande			+ 4 29.51	— 9 28.14					7
20	8 57	44	+8301	Cape Cat. '80			+ 10 58.20	+ 22 44.99	15 20	46.12	112 21	21.83	2
21	7 28	3	28282	Lalande			— 0 49.25	— 3 27.84					10
22	8 15	8	8516	Cape Cat. '80			— 2 12.66	+ 18 59.32	15 31	20.26	113 45	46.00	5
23	7 34	18	8559	Cape Cat. '80			— 2 21.18	+ 4 19.70	15 36	43.15	114 25	41.10	10
24	7 39	11	8628	Cape Cat. '80			— 4 27.83	+ 8 7.86	15 42	19.64	115 7	15.17	10
25	7 33	52	8676	Cape Cat. '80			— 3 58.30	+ 0 48.59	15 48	0.54	115 47	53.25	3
28	7 34	9	8807	Cape Cat. '80			+ 0 18.16	+ 8 42.33	16	36.57	117 46	26.43	10
29	7 31	2	8857	Cape Cat. '80			+ 0 23.19	+ 4 28.67	16 11	38.36	118 24	12.53	10

* This star was observed with the Sydney Transit Instrument on June 25, 1886.

† The difference between the comet and an 8½ mag. star first observed, then the difference between the 8½ mag. star and 8301 Cape Cat. '80.

1886, Sept. 1.—Comet seen; only approximate position obtained.

Sept. 2.—Comet very faint as close to moon; a diffused coma, no decided nucleus.

Sept. 8.—Strong moonlight; comet much more condensed than on Sept. 2. Coma small, about $\frac{1}{4}'$ in diam.

Sept. 9.—Comet much brighter even with increased moonlight; a suspicion of a nucleus. Observed with a star not in catalogue.

Sept. 10.—Comet extremely faint, and difficult to observe owing to haze.

Sept. 14.—Comet brighter; a suspicion of a nucleus.

Sept. 15.—Comet much brighter; coma about $1'$ in diam.

Sept. 20.—Comet brighter; condensed in the centre, with a very faint nucleus.

Sept. 21.—Comet bright, but no very distinct nucleus, but condensed in the centre. At $8^h 2^m 13^s$ S.M.T. the centre of the comet passed over a 9-mag. star. The star did not diminish in brightness, but appeared to have a slight haze round it. Three other 9-mag. stars in the field. A very faint nucleus was thought to be seen in glimpses; but if there at all it must be very faint.

Sept. 22.—Comet not so bright as last night. Difference of declination determined by the circle.

Sept. 24.—Night particularly bad; comet much fainter than it has been. A glimpse of a nucleus.

Sept. 25.—Evening very hazy; haze stopped further observations.

Sept. 28.—Comet faint; coma diffused, with a faint nucleus.

Sept. 29.—Comet fainter.

Telescope $11\frac{1}{2}$ -inch Equatorial, with filar micrometer.

Observations of Comet discovered by Finlay at the Cape, Sept. 26, 1886, made at Sydney Observatory with the $11\frac{1}{2}$ -inch Equatorial and filar micrometer.

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Date. 1886.	Sydney M.T.			Star's Name.	Difference of Comet from Star.		No. of Comp.
					Comet—Star. R.A.	Comet—Star. N.P.D.	
	h	m	s		m	s	
Sept. 30	10	0	53	9391 Cape Cat. '80	+ 1	45.7	— 7 44.51 1
Oct. 1	8	48	47	9391 Cape Cat. '80	+ 4	10.9	— 5 11.66 5
5	8	26	0	9504 Cape Cat. '80	+ 4	12.70	+ 13 40.92 6
11	9	17	49	9766 Cape Cat. '80	— 7	51.28	— 7 52.87 4
12	8	2	21	9766 Cape Cat. '80	— 4	57.38	— 6 59.78 10

Sept. 30.—Comet faint.

Oct. 5.—Moonlight; comet faint.

Oct. 7.—Comet observed with a star not in catalogue.